



Prioritization of Utah’s waters for E. coli Sampling

DWQ is interested in developing a scoring system for establishing priority waters for *E. coli* monitoring. Each water was assigned a score in 9 different categories. The sum of scores can then be used to rank waters from high priority to low priority. Scores and weights for each category have not been assigned. This process will be completed after scoring categories have been vetted. DWQ staff have prepared a summary of each water using spatial analysis of a number of spatial datasets including: UDWQ’s assessed waters, recreational use classes, location of boat ramps, State Parks visitation, fisheries visitation, and location of National Parks. DWQ has the capacity to monitor approximately 20 waterbodies monthly during the recreation season on an annual basis. In partnership with Local Health Departments and other agencies, this capacity could be expanded to 30 – 40 waterbodies. In addition, DWQ conducts intensive monitoring on most of the waters included in the ranking tool on a 6-year rotation across the state. While this is helpful for assessment purposes, it is not sufficient for on-going protection of public health.

Scoring Categories

The following potential criteria were selected by DWQ staff to help prioritize Utah’s waterbodies for monitoring to protect human health:

Scoring Category	Description	Draft Score	Draft Score Type
2A Beneficial Use	Assessment unit has a 2A beneficial use (protected for frequent primary contact)	1 or Blank	Yes/No
Perennial Waterbody	Assessment unit contains a perennial waterbody	0.5	Yes/No
State Park	The assessment unit intersects a State Park	0 to 1	Percentile
State Park Visitation	Annual State Park Visitation	1 or Blank	Yes/No
National Park	The assessment unit intersects a National Park	0-1	Percentile
Fisheries Visitation (Lakes Only)	Fisheries visitation from 2011-2012 Department of Natural Resources Survey (lakes only)	1 or Blank	Yes/No
Impaired for E. coli (2016 Integrated Report)	The assessment unit was impaired for E. coli in the 2016 Integrated Report	0-1	Percentile

Boat Ramp	Score based on number of boat ramps in the Assessment Unit	1 or Blank	Yes/No
Special Request	Local knowledge, Health Department request, DWQ water quality study (TMDL), etc.	1 or Blank	Yes/No

Materials

E.coli Draft Prioritization (spreadsheet attached)

For Discussion

Scoring categories:

- 1) What other data sets would be worth obtaining and merging with this file? More specifically, what other criteria are important when considering monitoring prioritization?
- 2) Discuss weights and scoring options for each category.

DWQ has considered the following issues while undertaking this analysis and recognizes their importance in prioritizing.

- 1) Scoring system does not currently include proximity to urban areas.
- 2) Special request scoring category has not been populated yet. This will be undertaken closer to the sampling season.
- 3) Visitation for fisheries was only populated for lakes (not rivers) due to lack of spatial information associated with visitation numbers.
- 4) Scoring system does not include visitation for each National Park/Monument
- 5) Scoring system targets Assessment Units and not locations and does not provide information on how many locations to target within each Assessment Unit.